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10/773,827	02/06/2004	John E. Jones	247171-000306USPT	8084
41230 7590 04/28/2009 CUMMINS-ALLISON CORP. C/O NIXON PEABODY LLP 161 N. CLARK ST., 48TH FLOOR CHICAGO, IL 60601				
EXAMINER				
HESS, DANIEL A				
ART UNIT		PAPER NUMBER		
2876				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/773,827

Applicant(s)

JONES, JOHN E.

Examiner

DANIEL A. HESS

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 55 and 56 is/are allowed.
- 6) ☒ Claim(s) 1-54 and 58-61 is/are rejected.
- 7) ☒ Claim(s) 57 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date 2/5/09
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is responsive to applicant's amendment and arguments of 2/4/2009, which have been entered into the electronic file of record.

Particularly, the applicant's attention is drawn to the 'Response to Arguments' section below, which follows the rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-54 and 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laskowski (6,573,983) and Force et al. (US 6,109,522), in view of Watanabe (US 4,434,359). It is noted that obviousness is not relied on to combine Laskowski and Force et al., for they are

already combined by Laskowski. Laskowski states (column 8, lines 25+) "The exemplary embodiment of the present invention may be used in an automated banking machine. For example the apparatus of the invention may be used as an identification device in the automated banking machine shown in allowed copending U.S. patent application Ser. No. 09/193,016 filed Nov. 17, 1998, the disclosure of which is incorporated by reference as if fully rewritten herein." Application 09/193,016 is now Force et al. US 6,109,522. Obviousness is used to incorporate certain teachings of Watanabe into the Laskowski/Force.

Re claim 1: Again as has been seen above, Laskowski and Force can be seen as a unified invention because Laskowski intends for them to be used together; it is further noted that both originated at the same company, Diebold Inc. and Laskowski had the Force et al. ATM in mind in creating his denominator. Laskowski is the high speed currency denominating device for Force's ATM in which customers can deposit stacks of bills. Force's ATM also enables dispensing of currency to customers in the normal way that is widely familiar. The combination of currency denominating and dispensing is described well in the opening lines of Force (column 1, line 10+): "Specifically this invention relates to an automated banking machine that enables currency bills, notes or other documents deposited by one customer to be identified and stored in the machine, and later selectively dispensed to another customer."

Force discloses an area in the ATM for receiving a deposited stack of currency notes from a customer (column 13, lines 66+) "a customer is enabled to insert a stack of documents indicated 146 in FIG. 5 into the delivery/reject area 60". As the abstract of Force makes clear,

after denominating, these stacks are sorted and then moved into storage canisters; this naturally involves output receptacles.

Looking next at the denominating device, which is conveyed in detail by Laskowski (see column 10, lines 54+ of Laskowski): “The transport 12 is preferably moved in such a speed that 15 standard U.S. currency notes per second are moved past the spot sensing assemblies. Of course, in other embodiments different numbers of test spots, data values and note speeds may be used.” Fifteen notes per second converts to a speed of 900 bills per minute.

The use of a master template is conveyed (column 17, lines 2+ of Laskowski): “Because the described form of the invention is configured to identify twenty notes in four orientations, there are **eighty master templates** in the data store in this exemplary embodiment.” Imaging of bills occurs (column 6, lines 64+ of Laskowski) and this is useful for tracking specific notes and rooting out fraud or illegal activity.

The fact that the system identifies the denominations of the notes (which necessarily requires a processor) is the main function of Laskowski and is discussed in abundance throughout. The examiner will not belabor that point. Totaling of a customer’s deposit is described by Force at column 5, lines 38+: “Properly identified documents are initially held in the escrow area. The output devices on the machine **indicate to the customer the type and/or value of the identifiable documents**. The customer preferably is enabled to select whether to have such documents returned or to deposit such documents.”

As far as the limitations which concern dispensing, see column 30, line 50+ of Force et al.: “If the amount of the withdrawal is authorized, the control system of the machine looks up

the storage locations of the various bill denominations at a step 502, and calculates a bill mix to be provided to the customer at a step 504.”

From this it is clear that different storage locations are used for different denominations and the appropriate number and type of notes to be dispensed is determined. As for a transport mechanism, this is of course necessary, and the bills must move one at a time for at least some time because they must be separated and counted. An interface for the customer to enter a requested amount is a part of all such ATMs.

Lacking in Laskowski/Force is a teaching that the denominating machine and currency dispenser is adapted to fit on a desktop of a user. However, the examiner takes the view that adjusting the size of the machine of Laskowski/Force is a matter of obvious design choice, with the motivation to allow bank tellers to both take deposits and provide cash to customers using a single machine that fits on the counter where they work. Certainly for a number of years, banks have had denominating machines that fit easily on a desktop for tellers to assist customers and currency dispensing is no more complex. Adjustments can be made that include reducing storage capacity of bills at many places, reducing the thickness of steel walls and other security features as well as shrinking the screen size. Witness the size range of computers and note that computers with equivalent capability can have very small or very large footprints and sizes.

See the following excerpt from MPEP 2144.04 regarding the obviousness of size and shape.

A. Changes in Size/Proportion

In re Rose , 220 F.2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package “of appreciable size and weight requiring handling by a lift truck” where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.); In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976) (“mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled.” 531 F.2d at 1053, 189 USPQ at 148.).

In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

B. Changes in Shape

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

In particular, regarding vertical stacking of bill dispensing compartments and vertical stacking of various elements, this is shown in Watanabe, to give one example.

Notably, Watabe teaches (see figure 2 and column 3) two different note dispensing compartments 13 and 14 holding notes of different denominations Pa and Pb, the compartments being vertically stacked upon one another. There is a note insertion area that can also be used for dispensing (see figure 1, ref. 5) and note dispensing area (see figure 1, ref. 10) that is higher than it. Many components (envelope insertion area 9 and passbook insertion area 8; card insertion area 6 and note dispensing 10, are vertically arranged with respect to each other).

In view of Watanabe's teaching, a vertical stacking of note dispensing compartments of different denominations and vertical stacking of various other components would have been obvious to one of ordinary skill in the art at the time of the invention in order to make good use of vertical space within the housing and therefore limit the amount of base area required. To give one example to support this motivation, a printer that the examiner has had for a quite number of years, the HP Officejet v40, is a desktop printer/fax that is vertically arranged with at least two paper inputs and two paper outputs all vertically arranged. The motivation for this of course is space savings

Re claim 2: Laskowski/Force's machine is all contained in a common housing.

Re claim 3: The footprint of the housing of Laskowski/Force is part of the issue of machine size, which is a matter of obvious design choice, as has been discussed above.

Re claims 4-55, 58-61: The examiner notes that Laskowski/Force teaches the essential concept of combining a stack-receiving denominating device and a dispensing device in a single machine. Claim 1, which has been addressed above, is narrower than many other of the

limitations. Many variations which are claimed have to do with the positioning and arrangement of parts, which may represent a rearrangement with respect to Laskowski/Force

Regarding obviousness with respect to arrangement of parts, the examiner notes the following caselaw:

In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) (Claims to a hydraulic power press which read on the prior art except with regard to the position of the starting switch were held unpatentable because shifting the position of the starting switch would not have modified the operation of the device.)

Motivations for rearrangement parts include fitting the machine of Laskowski/Force into a smaller form factor and also meeting ergonomic considerations to make the machine more comfortable. To give just one example, the vertical stacking recited at claims 4, 58 and 59 would have been obvious in order to for the device to take up less space on a desktop.

Other limitations involve security barriers in various places; these have long been used in ATM machines and currency handling devices with the motivation being a defense against break-in and theft.

A few limitations involve a second dispenser (claims 7, 13) or a second output (claim 16). Motivations for this include greater capacity to handle more volume. A good example is a

commercial scale copier which may have multiple paper trays (input) and multiple stacking areas for multiple outputs.

Allowable Subject Matter

Claims 55 and 56 are allowed

The following is a statement of reasons for the indication of allowable subject matter:
The examiner can find no motivation within the art and in the context of the other limitations present to perform ICR or OCR in the context of US currency bills, of which there are a small and finite number of exact types without variation.

Claim 57 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:
The examiner can find no motivation within the art and in the context of the other limitations present in the parent claim to perform bar code reading. Barcode reading systems are not traditionally a part of currency denominators.

Response to Arguments

Applicant's arguments filed 2/4/2009 have been fully considered but they are largely unpersuasive.

The examiner introduces Watanabe (US 4,434,359) which teaches a number of the claimed elements. Notably, Watabe teaches (see figure 2 and column 3) two different note dispensing compartments 13 and 14 holding notes of different denominations Pa and Pb, the compartments being vertically stacked upon one another. There is a note insertion area that can also be used for dispensing (see figure 1, ref. 5) and note dispensing area (see figure 1, ref. 10) that is higher than it. Many components (envelope insertion area 9 and passbook insertion area 8; card insertion area 6 and note dispensing 10, are vertically arranged with respect to each other).

Watanabe is certainly not usual and there are many examples in the art of different arrangements of dispensers, inputs, outputs and the like, often vertically stacked.

Much is made of vertical arrangement, but really there is nothing remarkable about this, for there are only three possible dimensions in which to spread out components/elements: depth-wise, width-wise and vertical. Indeed, in any conventional ATM, the vertical dimension is by far the largest, and so many components will be arranged vertically. Furthermore, the depth-wise dimension is not relevant for interface items such as inputs and outputs, which normally appear on a face of the device. Thus, in most cases, there are really just two dimensions which are relevant. Which just two dimensions available, it is plain that a vertical arrangement of parts will be selected often as a matter of ordinary design choice.

Further, those claimed differences which pertain to arrangement are differences of design, not function. There is no functional criticality in fact of parts being arranged vertically in the housing in fact. If parts were arranged horizontally instead, the result might be bulkier, less ergonomically pleasant or even ugly, but it would still be functional.

In addition, when it comes to specific placement of parts, there are a large number of permutations of part positions that are functionally equivalent. Does each deserve its own utility patent absent functional differences? Without belaboring the point, the examiner wonders whether design patents would be more suitable for at least some aspects of the instant invention.

Finally, the examiner reiterates that the proliferation of different shapes and sizes in the realm of computers (and printers and copiers for that matter) is indeed relevant inasmuch as it shows that capable designers can rearrange and resize electronic devices into an endless variety of shapes and sizes while keeping the same functionality. The case of desktop printers is especially relevant because a printer, like the claimed invention, has one or several inputs and one or more outputs. To give just one example, a printer that the examiner has had for a quite number of years, the HP Officejet v40, is a desktop printer/fax that is vertically arranged with at least two paper inputs and two paper outputs all vertically arranged. The motivation for this of course is space savings, similar to the motivations of the instant invention.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL A. HESS whose telephone number is (571)272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel A Hess/
Primary Examiner, Art Unit 2876